

with the state the work could be extended gradually both in the city and country districts.

Since the total annual appropriation for all health work in the state, outside of the insane hospitals and Bureau of Nurse Registration, is but \$120,750, we cannot expect those who are not particularly interested in tuberculosis to subscribe to a plan calling at the outset for \$150,000.

If the Bureau of Tuberculosis is to accomplish anything definite, stations must be established throughout the state for this sort of work; and if nothing more is accomplished at this meeting, I wish to ask your approval of a plan to establish one station in Los Angeles and one in Oakland which shall have in view the following objects:

First: To promote complete morbidity returns of tuberculosis in Los Angeles county, and the metropolitan district of Alameda county.

Second: To make a sociological survey of families reporting tuberculosis, with a thorough investigation of home conditions such as the number of adults and children exposed under bad conditions.

Third: To prevent the development of tuberculosis in children by: (a) Improving home conditions (instruction of parents, removal of infected member, reporting housing conditions, referring to clinics, etc.) (b) Improving school conditions (to be preceded by a study of existing conditions including the collection of statistics, as to the effect of open-air schools upon the health of pupils). These stations would of course co-operate with the city health department, the school department, the various local dispensaries and other social agencies.

The estimated cost to the state of one of these stations is \$3,000 a year.

Salary of secretary.....	\$100 per month	\$1200
Salary of visitor or visiting nurse	100 " "	1200
Office expenses and carfare	50 " "	600
		<hr/> \$3000

The legislature appropriated \$5,000 for a commission to "investigate the problem of tuberculosis in California, and to recommend an effective and comprehensive plan for the control and gradual eradication of the disease." It would certainly be logical that it should adopt the plan proposed by that commission so far as possible, unless in the course of time, evidence should arise to show that the plan is not a good one. The first step was the establishment of the State Bureau of Tuberculosis which cannot fully accomplish the purpose which was intended by the commission without the other units of the plan. Of these the first in importance was the dispensary, the second, the county tuberculosis hospital with state subsidy, and the next, district sanatoria and state farm colonies for early and convalescent patients. It is for you, gentlemen, to establish the present status of the plan proposed and to unite in the support of whatever plan may be agreed upon.

AREQUIPA SANATORIUM, A SOCIOLOGICAL AND ECONOMIC EXPERIMENT IN THE CARE OF TUBERCULOUS WAGE EARNING GIRLS.*

By PHILIP KING BROWN, M. D., San Francisco.

Arequipa Sanatorium makes no claim to any distinguishing characteristics save in its efforts to meet a social and economic problem made very plain by the three years' work of the Tuberculosis Class of the San Francisco Polyclinic—the need for a place where young working women could go with their early tuberculosis and be cared for at a rate within their means, with no element of charity and with the added opportunity of earning part or all the cost by some form of work which they could do safely on a commercially successful basis.

It undertook also to secure co-operation in the support of early cases at the sanatorium from employers of female labor and from social and labor organizations.

Finally it has tried to carry on some educational work among the 40,000 working girls in San Francisco, among whom the death rate from tuberculosis is twice as high as among men.

The first part of the problem, providing a place where early cases could be cared for at a modest rate, was made possible by the generous gifts of land and money for building, of services of architect and wise counsel of experienced people, until within a few months \$20,000 had been spent in providing a very complete plant for 24 patients, including water supply and sewage system, a laundry, a stable and equipment, servants' building, work building and a cottage for the visiting physicians and managers. From the first there was a hope that all expenses might be met from the payments of \$1 a day by each patient and it is a satisfaction to say that this rate has thus far—over a period of two and one-half years—covered the expenses of board, nursing, laundry, household and upkeep of grounds and provided repairs and renewals. The only exceptions to the dollar a day rate are patients obliged to be continuously in bed, who are charged \$1.50 a day. Patients' individual laundry is done for them, but they are charged for drugs for other than their tubercular trouble. It is the aim of the sanatorium to take only early cases and to avoid receiving any who would have to remain in bed.

Our class experience has taught us that rarely do third stage cases among the working class become again active factors in the industrial world and that most second stage cases reach only the "apparently cured" state and relapse sooner or later. We do not feel that we ought to take any third stage cases except where cavities have shown signs of organization, and constitutional symptoms have long since ceased. In other words, while admitting that even third stage cases can recover sufficiently to do light work, we expect to take such cases only when they have shown decided gains and when they are ready to make a trial

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of work. We want to limit our care as far as possible to cases who can be helped to recover and taught how to live so that they may go back to *work* without danger of relapse. Merely keeping such cases alive indefinitely is not part of our scheme.

Very early in the plan, when seeking to limit its scope as much as possible, we decided that women had much less opportunity of recovering from consumption than had men. The healthy outdoor occupations which were open to them, without their being a danger to those associated with them, were vastly fewer than those open to men. For that reason and because it has been found unsatisfactory to mix the sexes we deemed it best to limit the work to women.

We were tempted to borrow from Dr. Peers the use of the word "school," which means to those who are interested in this cause that patients are taught how to meet all the problems connected with tuberculosis, but we felt that Dr. Peers had done so much to make his school a satisfactory and powerful factor in this work that it hardly seemed fair to duplicate the name. From him and from several earnest workers in this field in the south we got much help in planning our work.

The finding of suitable occupation presented great difficulties. Many varieties of handicraft had been worked over at Miradero Sanitarium for the past fourteen years, where for its re-educational influence on the nervous system, various occupations for neurasthenics have been systematically tried out. Among these were leather carving and stamping, wood carving, bead work, weaving on looms, and instruction in botany, zoology, astrology and ornithology. The class members of the San Francisco Polyclinic Tuberculosis Class had made baskets of raffia and willow, but they possessed no market value. Patients were provided with material for various forms of hand work all with the same result, a product was turned out which had no special merit and frequently hours of time were spent on an object that at best could bring but a few cents. Besides this not everything made could be rendered sterile by any process of disinfection without risk of ruining the article. The objections to artificial flowers, straw-work, unwashable embroidery, etc., are obvious. Then, too, many of the women in the class were married and had children and households to care for and many of them had never had any training in handicrafts. The idea of making pottery came to us from Dr. Hall, who conducts at "Devereux Mansion," Marblehead, Mass., a remarkable institution for the care of nervous cases, in connection with which is a successful pottery, where part of the work is done by the patients. The history of a number of potteries in the country is associated in some way with providing occupation for educational purposes or for handicapped people. It is particularly true of the famous "Rookwood Pottery," begun in Cincinnati by Mrs. Maria Longworth Storer, more than 10 years ago, as well as the "Bowl Shop" in Boston by Mrs. Helen Storow, who began by providing occupation for little Italian children off the streets.

In the two and a half years of our pottery experience at Arequipa we have in only a few instances had patients who earned their entire support, although at one time there were as many as four on this list. No one is obliged to go to the pottery and no one is allowed to go who is coughing, or who has within a week had a temperature as high as 99°. Our routine in handling patients is very much that of other institutions. On arrival they are put to bed and kept there until the temperature has been normal for several days, whether it has been above or below when they reach the sanatorium. If they are coughing excessively they are kept in bed until this ceases. When they wish to work in the pottery they are allowed to begin on one hour a day, and generally this means that they are put at something that requires no special effort. They are not paid until they have learned to do work that is of some actual assistance, and sometimes a week or so may elapse before they reach this stage. In the meantime, if conditions continue favorable their working hours are increased to two or three a day, none of them working more than five hours a day, and no one works on Saturday or Sunday. As much as fifteen dollars a week has been paid for the twenty-five hours of work accomplished by some of the girls before they leave, and as high as one dollar and fifteen cents for a few hours' work has been earned within three weeks of beginning the work.

The heavy work of preparing crude clay, now obtained largely on the premises, which must be ground through sieves, is done by orphan boys sixteen or seventeen years old, who are learning the trade, although paid sufficient wages to hold their interest. The entire management of the work is under the direction of Mr. A. L. Solon, the son of Louis Marc Solon, one of the most distinguished art potters in England in the last quarter century. The carrying out of the modeling is under the direction of Mr. E. Frey, who was for four years at Rookwood Pottery, who graduated from the New York School of Design and who worked later with St. Gaudens. The furnishing of designs and the critical supervision of the art feature of the work has been the generous contribution of Mr. Bruce Porter and Mr. Henry Atkins. It would be unfair not to mention the contribution to the success of this work which we owe to the interest of Mr. F. W. Dohrmann, of the Dohrmann Commercial Company, who handles for us the vast majority of all the pottery that we sell. Mr. Dohrmann's interest as a layman in the problem of tuberculosis has made him a strong factor in the support of our work.

And now the question, Do we make it pay? There was a time in the beginning of the work, when the interest was very deep on the part of the public, that we more than cleared expenses. The manager at that time became somewhat too ambitious and a quality of work was turned out, very little of it made by the girls, for which there was no market. Under the present manager we have devoted ourselves to the type of things that the girls can do entirely. The pottery that you see is their work, and under this same manager,

barring the salary paid him, much more than half the money paid in wages is paid to the girls.

At present our expenses at the pottery, of about six hundred dollars a month, are almost met by our sales, the deficit of about one hundred and fifty dollars a month being met by friends, and we hope by advertising to increase the sales sufficiently to put the work shortly on a successfully paying basis.

We have had frequent cases where no special gain was made until they began to work, and no girl has had to give up work because of any bad effects. There is a generally better atmosphere about the sanatorium on the days when the girls are at work, and considerable ability in modeling and decoration has been uncovered in a large number of them. Much of the work is simple enough to require no special aptitude, and the girls teach each other, so that the labor of supervision is reduced to a minimum.

It is gratifying that in no single instance have the employers of the girls with early tuberculosis refused financial assistance to their employees at our solicitation. We have sought to secure this co-operation, not on the grounds of charity, but as a contribution to the cause from business and manufacturing houses, and we have limited our requests to cases where the women have held their positions for at least one year and have tuberculosis in its early stage. From the Emporium, the White House, the Pacific Telephone Company, Rosenberg Brothers and numerous others we have had one or more cases. Private individuals have assisted in paying the way of about one-quarter of the girls. The Associated Charities of San Francisco, through the Red Cross Fund, have sent us a large number of patients until now, when their funds are exhausted. Fraternal and social organizations have paid for eight or ten girls. It is evident from our experience that at least one-third of the patients must be helped financially, to remain under care as long as they ought to remain.

We have been able thus far to help every girl to stay at Arequipa even after her money has been exhausted, until other conditions made her departure or discharge necessary.

Unless we can take only girls so little handicapped by their disease that they can go to work in the pottery soon after arrival, or unless some one gives us a number of endowed beds, it is going to be impossible in the future to keep up the work of raising money to keep girls in the institution. We have felt that our labor should end in providing them at a minimum cost with the best possible care and surroundings. If we extend our efforts further, it seems to us they can be more profitably expended in educational work along health lines among San Francisco working girls.

SOCIAL INSURANCE IN ITS RELATION TO TUBERCULOSIS.*

By J. N. FORCE, M. D., Berkeley.

Tuberculosis is the "great equalizer." With

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the exception of those individuals whose income is derived from an invested principal, every case of advanced tuberculosis must eventually accept charity. The charity may be either public, as the clinic or county hospital, or private, measured in terms of the transferred work and wages of some relative. The average physician dislikes to assume charge of a case of tuberculosis. That is why so many people are sent out to Arizona. There is no advancement, financial or otherwise, to be obtained from watching over the last days of a middle-class consumptive. There is only an opportunity to contribute to the before-mentioned private charity, by not sending a bill afterwards.

The especial aggravation lies in the fact that the disease is so absolutely and entirely preventable and its control is so well understood. We know exactly what to do for every case of tuberculosis in every stage of the disease—if he has money enough. We know how the offer of free treatment in a clinic will act as bait to catch a single case, and by means of a visiting nurse, we know how to catch the rest of the family. We also know just what to do for all the members of that family—as long as the money holds out. We know how to run a cottage sanitarium, a day camp, a night camp, an out-of-door school, a hospital for advanced cases and all the other machinery—if we have gasoline and oil enough.

It is remarkable sometimes how quickly tuberculosis will bring a family down to the charity basis. I once knew of a family consisting of father, mother and four children. The second child had coughed up blood, the third child had a chronic cough and the fourth had a cold. The father was on a good salary and the family lived in an excellent residence district. In less than a week after the diagnosis was made, the mother had taken the three younger children to a cottage colony, the father and oldest daughter remaining behind to "break up housekeeping." Hardly had the family reached the colony before the father "lost his job," with the result that the family has been living on medical charity ever since, and the mother has been taking boarders to pay the cottage rent.

The administrative and medical standards of most of our county hospitals do not appeal to the working man. Carrying as they do the stigma of poverty, often associated with a poor farm, distant from centers of medical activity, inaccessible to the hard working members of the patient's family, is it any wonder that they are regarded as infernos of abandoned hope? The families of a certain class have a mortal fear of being broken up. So we have the paradox of a man concealing his disease, so that he may continue with and work for his family, while at the same time he is sowing the seeds of destruction among them.

In order to save the children while caring for the adults, it is evident that any solution of the tuberculosis question must consider the entire family and deal with the financial problem involved in a recognition of this social unit. Open air schools are good, the Arequipa pottery idea is good, the farm idea is good, but they all depend for their highest efficiency on the care of early cases, and how are